

HOME COMPUTING WEEKLY

AN ABOUT SPECIALIST PUBLICATION

August 13-19 1985 No. 123 30p

C16/plus4
TIME SLIP
 Don't buy another
 C16 game until
 you see TIME SLIP!

SOFTWARE RELEASES



A round up of
 the latest
 programs

SOFTWARE REVIEWS

5 pages of
 the latest and
 greatest

SOFTWARE LISTINGS



to type in on
 Spectrum, C64
 and Amstrad

How many 128s by Christmas?

Owners of a new machine will be as varied as the prices on 20 August and should be available on the shops for Christmas.

The number file on the computer is potentially huge. It is suggested that it will have a minimum of 128C, better, based on cost and it would be the price as the PC 128.

Amstrad Christmas are enjoying the gaming game. A spokesman said: "We don't want to spoil things by giving details but it does impress in the public eye."

"If you get all the other published about the machine together and there are 90 per cent you may be close to the truth. But if you are not saying which 90 per cent."

The spokesman said, however, revealed that the computer is a single new machine which makes the CPC 128 look boring.

Similar are circling Amstrad in the money stakes by increasing a total release on the program of the 128C Spectrum Plus. Amstrad refused to comment on whether the 128 had been scheduled for release.

The current standard price of the Spectrum 128 includes a price tag of less than £200, an 8V series which ship with a high degree of software compatibility with the Spectrum.

Comments here, of course, already released details of their 128 and it is expected to be as the shops in early September priced at £240.

A spokesman for Commodore stated: "Our whole philosophy is not to pre-announce and I think we have made a mistake on our rivals because we are already going to deliver the thing."

Comments on some which of the new machines will fire the public's imagination. Release are more and in agreement, however, that increased memory alone will not be enough to persuade the owner to upgrade.



C128 waiting for competition

Virgin six-pack in TV ad



Virgin's Nick Alexander

The first line up of New Games, the first game compilation from Virgin, is to be made released on August 20th has been announced.

A headless Nick Alexander, managing director of Virgin Games told RCTV that the first line will be offered by Brian Bloodaxe (Editor).

The other five titles are Lords of Midnight (Diamond), Everyone's A Winner (Miles Kent), Arabian Nights (Marschall and Strangely) and Phoenix Patrol (North Virgin).

New Games will be available for the Spectrum and C64 and retail at £8.95. The launch of the compilation will coincide with a TV advertising campaign costing £200,000, home computer discs from the game.

Marked the game together the package is built as a short, four disc, a lot of it is a game," but although it is New Games goes well that it could be more competitive in the way.

The aim of New Games, and Mark, was to offer best selling games at "a good price".

Write your
 own Amstrad
 game p.16

Educational
 programs for
 BBC p.8

Trouble at the
 Mootball and
 Micro p.28

Books for 128,
 Spectrum and
 Amstrad p.15

C64 Sprites
 make their
 moves p.20

MIRRORSOFT

has had a BRAINWAVE!

Introducing new BRAINWAVES - arcade/adventure programs for the under-12's. They require quite a lot of thought and planning, so get the old grey cells working for

PHINEAS FROGG Super Sleuth

Phineas Frogg is a rather sophisticated secret agent in the tradition of James Bond (or maybe we should say James Pond, since being a frog, that's where Phineas spends a lot of his time!)

His boss, Badger, known to all as Big B, has informed Phineas that Professor Mole, the world-famous scientist, has been kidnapped and taken to the Secret Lair of the Terrible Hamsters (S.L.O.T.H.).

Your task, as Phineas, is to read up the background thoroughly (provided in a small book), and rescue the Professor, passing the various tests that Hamsterchief sets along the way.

Spectrum 48K Cassette £7.95 Disk £10.95



ANCIENT QUESTS

Two educational arcade action games. In KING TUT'S TREASURE, you're an archaeologist, scouring the deserts of Egypt for the keys to the famous tombs. You are equipped with a metal detector to locate buried clues but you must watch out for the hazards that appear in different parts of the desert - you only have a limited number of lives!



In THE COUNT, you are in the evil Count Dracula's Castle. You have a number of items to locate which may be found in any of the castle's dozens of rooms, and then you must escape without falling into the hands of the Count. With careful planning, you could manoeuvre the Count into a situation where sunshine will pour through the windows and turn him into a pile of dust.

Spectrum 48K Cassette £7.95 Disk £10.95



MIRRORSOFT programs are available from good software stockists everywhere. In case of difficulty or for further information, please contact:

MIRRORSOFT

MIRROR GROUP NEWSPAPERS LTD, Holborn Circus, London EC1P 1DQ
Telephone: 01-822 3580

HOME COMPUTING WEEKLY

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1985

No. 135

Spectrum

Oh how I agree with the plan: the ones board occasionally from the MCH. Spectrum, on the subject of Computer Science is correct. Yes, it is possible to learn, but it's just as possible to teach. Because the modern computer enthusiast is trained in the world colleges devoted by the same boards.

In a few minutes, waiting from scratch, anyone can be allowed to teach programs themselves, discovering and solving a total of 24 hours learning from scratch programming. One board already states that you can use most of the BASIC which would allow this to be taught.

No more than all the time yet. Teaching about teaching and systems, the history of computer development, computer architecture, the all time dry stuff which some would argue is irrelevant as compared to the development of logical thinking, and as experienced in computer language. So much is necessary into the subject in order to cover every aspect of computing that we will teach less and less about more and more until we reach nothing about everything. *Signature Philosophy*

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NEWS

Adaptability

If you're forever tripping over your cassette leads, or simply can't find enough sockets to accommodate the hi-fi, computer and TV, then maybe the Way Start Components have found the answer with MiniViking.

This range of audio socket adapters features Powerdials, a four-way one connector with a remote filter designed specifically for use with cassette electronic equipment such as computers.

MiniViking Powerdials is available at £14.99 for the four-track model and £16.99 for the fixed remote.

Hi-Way Styl Components, 15 Maynard Ind Pk, Gairth, Broomfield GL1 2PD.



MiniViking Pro-Way Styl's range.

Having his cake...

It was a very nice gesture on SCL's behalf to send us a piece of Sage 1 Super's first birthday cake.

It wasn't quite such a nice gesture for the Editor. Dave (eventually) Carlos, to have eaten it before we even got a look at. Anyway thanks Sage and congratulations on selling over 15000 Superstar keyboards.

Sage Systems, 2 Elm Rd, Woking, Surrey GU24 4JF



More Super RETURNS to the Sage keyboard

BBC BASIC for the Commodore

The Commodore BBC Emulator is now available from Micro Dealer UK.

The emulator converts the Commodore machine which can be programmed to exactly the same way as a BBC machine. It

provides the user with an 80 column mode in which full screen graphics and editing are possible.

Priced at £14.95 it comes complete with full explanatory manual.

Micro Dealer UK, 29 Farnborough, Walsby Gardens City Centre.

Comfort and joy...

You couldn't hope to find more user-friendly technology than CCL's Animates.

This range of cuddly animated toys includes such bundles of joy as Baby Polly, a raven, and-worms and even the Police Penguin who features his wings to his heart's content.

So if your computer won't speak to you and you're in need of some human affection, — or simply looking for that early Christmas present — this could be the answer.

Are many, stage in press, pages 129-131.

CCL, CCL Ave, Gillingham Kent, Dargrave, Essex RG10 2PE.



CCL's software range

In the first of our new weekly column, we look at the latest games to pass across the HCW desk. If it's new it's here!

Battle away

It's been Atari's week at CDS with two new conversions for the CPC 464 and 466.

The first is *Amphibious*, a tactical war game which gives a realistic simulation of the 1944 Market Garden operation. There are four parts to the game, each one being a complete game but all contributing to the full simulation. There are also options for one or two players and an automatically scrolling battlefield. Priced at £9.95 the

game will be available from 7th August.

The second Atari release is *War Zone* which uses the computer to set a new battle field every time you play. All the dangers are changed on the plains, roads, woodland, hills and swamps and you adjust the weapons and you select the number of playing pieces that are to be used and thereby affect the complexity or other view of the game. *War Zone* is already available and costs just £9.95.

Golden nuggets

US Gold are keeping up their own company stall at the software show with one more release this week and two conversions.

The new game is available for the Amn and the C64 at £9.95 on cassette and £14.95 on disc. *Mike Hilly* has in a combat simulation which "suspense, stimulates and challenges your fighter pilot instincts". What surprised us is that the game is being sold in a double cassette case with the extra space holding a small card with details of future releases. Score a win of itself over to me!

The conversions released this week are *Death Head* for the Amstrad and the BBC (in due the first US Gold title for the Amstrad Micro?) both are at the usual price of £9.95 on cassette but just £12.95 on disc.

Spectrum *Dambuster* is new with us and there are versions planned for the BBC, Amstrad, Pippin and Atari. *Death Head* game also has an offer on the Amstrad model of the bomber used in the raid but be careful with that offer, you don't want to put up your cassette recorder with cassette costing £9.95 each do you?

A full list of Robert Atari's titles from the company has also been announced. Besides those named above there will be *Return to Oz*, *Conquer* and *Zorro* games soon as well as conversions of *Death Head II*, *Pole Position*, *Up 'n' Down*, *Bank Buggy*, *Congo Bongo*, *Dambuster* and *Wings* to the Amstrad Micro. It looks like it's going to be an Amstrad Christmas of the delights of software conversions.

Big soft

Marshall have been signing up all the big names for their forthcoming releases and when I say big I mean BIG.

In mid October we will be having a game from Geoff Crampton, one of the British music and song rock. The game will not follow the usual software game approach to that there will be no musical features here. The idea is that you try to bring Geoff to the peak of physical fitness ready for the next event.

During the actual event speed and reaction will be important if you are to give Geoff any chance of success. Those of you who are coming to the PCW show might be able to meet the musician, sorry I mean man, himself as he will be there to promote the program. The actual name has yet to be decided but it will be available for a huge range of micro's at £9.95 from mid October.

The other new program from Marshall will feature the Zoids. Tomy's robot monster toys. The game will be written by The Electronic Pearl Company, the same group who were responsible for the 4th Protocol program.

There are very few further details available at this stage but the game will sell for between £7.95-£9.95 and be written for C64, Amstrad, MSX, BBC, Electron, Spectrum and Atari machines.



Blowing bubbles

The bubble has burst for the Amstrad and the Electron as the BZ emerges.

The crowd went up to get you and your courts doing something useful instead of playing games all day. The package has three parts — Graph 1, Time 1 and Calc 1. I don't expect that it needs a manual to tell you what each of the programs do but so that you can play Trivial Pursuit with cheap opponents you draw graphs, display the time and do calculations. For the Amstrad the cassette costs £8.95 and on the Electron the disc is £12.95. The Wizard has been sewing.

His magic wand and the magic use of Bubble-Bur were in the Wizard's Lair which will have the Amstrad Version on one side and the C64 version on the other. I wonder how many will be returned in haste due to buyers trying to find the wrong side?

In this game Poi Hole Poi finds an amazing subterranean network of tunnels and caverns which comprise the bones of our subject, the Wizard. He has to find the four pieces of the Gold Lure in order to escape and there are plenty of energy-sapping obstacles when he is not sleeping. This game is priced at £8.95 and will be in the shops at the end of this month.

Koma MIXTure

Koma Computers have announced a new range of games for the Amstrad range of machines but the only one as yet made public is **Koma Mixt**.

This will be available on 11 tapes for £5.95 and Koma states that it is a "high speed arcade game with superb graphics and full use of the Amstrad's facilities". There will be both keyboard and joystick control and user-defined keys. Each level of the game will be faster and more challenging with greater numbers of enemies.

Also from Koma, who say

during the sale "the leading MSX software house" comes **SHN&S**.

This game has a number of differences from the ordinary according to its producers. There are an infinite number of levels, specially 10 scenarios but with different features and speeds each time. It is controlled by joystick only and the object which you find shows the path you are used to direct your opponent. It only you can smash the object and the enemy.

Then "obstacles" more good will be in the shops by the time you read this and will cost you back £5.95.

Shorts

Allypia have decided to take the much out of the software industry, with their latest release for the Amstrad and C64. **Clash Short** can we or hear that it has variable. Uncle Claude and various other well known symbols floating across the night sky in a short run up game that lives up to its name. We are even informed that it came with a batch of Irish jokes. We wonder if there will be a special version prepared for the Irish market with English jokes?

The game releases of the available have another game up the shelves for stores that might be available in the PC-W store but no details are flowing out of Starfield yet.

Earlier last for this year's examination candidates, is a new collection of revision software from Charles Lewis, perhaps they hope to put the exam days in their debt. The software will follow from their successful **Keyphrase** revision aids and will be available for BBC, Electron and Spectrum machines. C64 releases are promised for later in the year. Subjects to be covered include Biology, Chemistry, Computer Studies, English L1, Geography, Mathematics and Physics. Each program will cost £10.50 and we have requested review samples, so check the software are now in a couple of weeks time.

If you ever fantasied building a robot, then the new game from V&Vsoft is likely to appeal to you greatly. In **Tales** you have to fix and then assemble parts of a robot which have been spread over 300 screens of a total language. The whole operation is made more difficult because various parts carry weapons which are likely to go off as a means of attack. Claimed to be an Adventure, once after you have assembled the machine you have to find the Crown of Liberty from its secret vault. It sounds like good value on the Spectrum at £2.95.

Future games from US Gold announced this week are **Gooseb**, based on Spielberg's recent movie and the official **World Cup** game based on the contest in Mexico 1986. The football game will be for Amstrad, C64 and Spectrum at about £2.95 but don't hold your breath waiting — it can't date for release until two weeks before the final commences!

As mentioned in John Henderson's Education column a few weeks ago **Marks with a Story 3** is now released. This book and cassette pack now follows from a 2-book radio series which is due to be broadcast again from Thursday Sept 26, at 9.00pm. The book is priced at £4.95 and the cassette at £10.95, they cannot be bought in one package at the moment. BBC and Electron versions only.

A couple of weeks ago we had a review of the **Red Arrows** game for the Amstrad. Dealers have now released the Spectrum version at £5.95 with a percentage of the profits going to support Forces Charities. There is a free High Score competition for players with the chance to visit the team at their base at RAF Scampton. So follow the red leader!



Four new Amstrad titles from a range of companies have landed on our desk this week. **Knights** has released **Landing Pirates** and there are no prizes for saying we're giving this type of game a pass. You are giving £2.95 for the privilege of losing, this would not be a C64 software house. **AD Video Chess** will be a worthy course for the chess buff at £4.95. It appears that the pieces actually talk, I can't wait to see the game of the one. **Tom West** is a real — that should be something. Finally, on this occasion we have two new releases from Amstrad, by **Adrian Smith**, **Dragons** and **Brave Baff**.

Changes software of the most award game, **Central Solitaire**, for their four Spectrum games at just 99 pence each. They are a mixture of arcade games, graphics, adventures and not adventures and there are promises of more to come.

London's software might like to hear that our own **Diana Smith** has written an adventure program for the Spectrum called **Wizards**. don't ask me why. The cassette is available from **Transform** at £12.95 and it appears that our company will produce an index of NEW arrivals. Diana claims that it is a programming attack with £12.95 but is named into the **Specter**.

Autumn is rather subtle over from finding their new game **Year of the Dragon**. The game will be produced by Robert Bellar nicknamed the King of the Mountain due to his strange look like a dragon. The C64 other versions will follow soon, priced £2.95.

Finally Robert informs us that one of their adventure titles has fallen foul of Chemical giant ICI. It appears that **Amstrad** had been registered as a software trade mark by the conglomerate and they objected to Robert using the name. So if you want a copy of **Amstrad** (or Robert's own ICI) you have to ask for **Red Blame** or the name will be around.



EDUCATION



With a look at the future of computing in schools and reviews of Jacaranda's new programs this week's education article from John Henderson is overflowing

Talk in the schools at the moment is based upon fears for the future. The rapid swing of the pendulum in the world of education is slowing down.

Over the last four years, schools have been hit by the computer revolution so much an extent that the same revolution is beginning to take its toll. Government plans to place a micro in every school have been very successful. However, in every revolution there are casualties. Already schools are suffering from the additional pressures of more training and the search for educationally valuable software.

The BBC Micro, the most

popular educational micro, is in danger of becoming extinct as new 16 bit machines hit the market. The government has already modified its plans and claims to want 16 bit machines in all schools to be comparable with industry. In reality, schools cannot cope with these changes. Even if a full subsidy was allowed, it would have drastic consequences — old machines, a lack of software and staff were training to try and help teachers cope with yet another development where results are required in three months.

In reality what will happen is a general consolidation of the revolution to date. There are

still many bridges to build. Software needs must be more adaptable to individual schools. Further skills need to be developed to allow all children access to computers — one computer in a school of 30 children, one computer in a school of 300 children is still common. Schools will look to second hardware they already possess with comparable machines.

The Home versus School problem is yet to be tackled, although the Electronics group, a popular alternative to the Sixth Form sales have risen over the last year so that Aston's share of the home market stands at 20%, as opposed to 8% a year ago. Aston is attempting to update the BBC computers. All the material a BBC Micro available. Later in the year numerous support a B+ and even a C model. Without further financial help and trying the problems of today will reappear.

SOFTWARE



One on One

This is a simulation of a two-player basketball game featuring two different levels of play. The leading scorer looks great, and sadly, it's the last thing that does. The game is played on a so-called 3-D court by two very flaky and jerky blockheads. Mind you, it isn't as about half as hard to flickers out how to get the score to work from the instructions given in order to get to this stage!

According to the blurb, the program actually represents the playing characteristics of two well-known American players, and rumbles on about statistics and offences and variations in play. In the end, you can sit it up for a two or two player game, and in addition to keyboard, there are joystick and Kempston joystick options.

In the final analysis, the players are so badly represented, it's difficult to see which has the better of a couple of serious problems and flukes, and these require to control a game. Even on the pro level, where a referee interrupts every ten seconds, play is simple and equally becomes boring.

Given the capabilities of Ultramax's accessories, this could have been really good. As it is, it has all the technical elements of a poor £199 game and thus cannot be recommended at any price. As Amstrad illustrates the above with scores taken from the Commodore 64 version, are we to presume that they too require its basic board?

D.M.

Price £8.95

Publisher Amstrad

Address: Asphale House,
Palace Green, London SW1E 3HS

SPECTRUM



Digital Defender

I'm sure that if I hear the first three names played once more on a piece of alien-sounding software, I will scream. Not a bad implementation here, however, and a nice idea the game offers in the option to control the screen display with the cursor keys whilst the main program is loading.

Obviously steps then, I'm afraid. Despite a kind of tone possible offered in the background to the game (which has landed when we've been busy playing invaders and they have stolen all of our formations), I'm forced to admit that it could hardly bear to play this — and hopefully I'm getting paid to do so!

Your MIB (Miserable Flying Insect) made no way across the low horizon whilst an assortment of perfectly-planned moving stars enter the city at various heights. Some fast, but? Well, what makes a almost unacceptably useful in that these stars can only manage to appear one at a time, then allowing you to choose the phone or make a cup of coffee or whatever and still shoot the "mooks" down.

Price £7.95

Publisher Bryan Technology

Address: Cynham Chambers,
14 Leitch St, Wolverhampton
WV1 1XG

However, this isn't a version of Invaders, despite the presence of the satellite cover and the background documentation. The whole point of the game is just an exercise to offer you a simple equation to solve — addition, subtraction, multiplication or division depending on which stage scenario you choose. Despite the presence of a 3-screen title and three lives (you lose if you should miss the shot — ha! — or fail to solve the equation — double ha!)

Now it may be that you need a little bit of fun in solving the puzzle of a brain-teaser 'em game and on that basis I suppose that it is as good and as bad as half a dozen others, but it does seem a little weakly by its own package it is a choice 'em up.

If you're into those you might well pick this up and be more than a touch annoyed, especially as the two elements are so incredibly dull, if you're a teacher or parent looking for a simple maths aid for your kids then you'll probably never even pick this up. Come to think of it, that is almost certainly the best possible thing that could happen to you.

D.B.

BBC





Vegan Attack

Sometimes, I wonder whether anybody takes much notice of the reviews that my colleagues and I write. Time and time again I have read or noted without that just because software is labelled "budget" it does not mean that software companies can get away with releasing sub-standard material.

Atlanta Software obviously haven't applied the above message to their latest release for the Amstrad. *Vegan Attack* is a sort of Star Trek game where you wander from quadrant to quadrant riding the galaxy of Klingons, Zorps or whoever the maladjusted enemy is called.

This sort of game is essentially a strategy/maze game with you planning your journey, refuelling at star bases, keeping a close eye on enemies, weapons and so on. Code Name: MAT, which is available for the Amstrad and many other computers, added great arcade action to the basic plan, while Salamander Software's Star Trek was so detailed and graphically excellent that it was a joy to play. These were both programs released some time ago.

The new product has neither the graphical quality nor the cerebral action to keep you playing. Commands have to be clumsily entered by two letter codes and the scrolling time is pretty slow. I couldn't find a way to break into it at first but could see that the whole program was written in BASIC. There is nothing actually wrong in this but it is not even particularly well-written.

I suppose one could purchase it under the pretence of buying a traditional computer game. Star Trek being one of the earliest, but you may be just as well advised to score the computer magazines for a "Bad" Rating. **CAG**

Price: £1.99

Publisher: Atlanta Software

Address: 10 Peckford St., London N1 6PP

AMSTRAD



Alien

I have a slight distrust of software which leech heavily upon a well-known title from the cinema. There are exceptions, such as Rocky Horror, but frankly I'm not sure this program would really create any apples if it was not for the loaf and the film.

The screen is split into three main sections. The left-side shows a map of part of Neptune, the spaceship on which the astronauts have found themselves. The right side gives the various menus from which software can be selected, and at the bottom of the screen is the final window containing status reports, messages of danger and the like.

Notorious, as you are doubtless aware, has been awarded to the Alien, who has stolen the body of one of the crew, although the screen from game to game. By moving various other members of the crew around the ship, the alien is to locate where the Android is — and then trap it. Care must be taken with weapons, as the body renders an anti-life substance when activated, but with luck, it might be possible to blast the creature into space through an airlock.

The menu system is simple, with keys or joystick entering a selection based on a menu. It is fast and responsive, often faster than the program allows the character to move.

I found the program a little repetitive to play, but I am sure that it will appeal to many owners, and will be a big seller. Perhaps I would enjoy it more if I was better at it. **P.T.**

Price: £9.95

Publisher: Amstrad

Address: 166 Kings Rd., Brentwood, Essex CM16 6EP

AMSTRAD



Kayak

One of the first computer games I ever played, years ago, involved driving a car around a winding circuit. The edges of the track were marked by rows of white posts, and all the player had to do was to move to the left or right to keep the car between the posts. This game is very reminiscent of that one, except that the car has been replaced by a kayak.

The screen displays in all a swirling row, as smooth blue water breaks at intervals by white boulders. As your kayak moves slowly along the river — it is pulled automatically, you only have to steer it — pairs of posts appear. You are supposed to aim the kayak between these posts, keeping the white posts in your left and the red ones to your right. However, the steering becomes very erratic as you get close to the posts, so success depends more on luck than good judgement.

If you separate a pair of posts successfully, a white square appears instead. When you have passed 25 pairs of posts, the game ends. No score is given, but I suppose you could count up the black and white squares if you want to know how you've done.

The sound effects, a steady splash-splash which continues even after you have completed the course, add to the repetitive effort. A dull idea, poorly executed — give this one a miss. **W.D.**

Price: £2.50

Publisher: Creative Sparks

Address: Thomas Hse, 260 Burnborough Rd., Burnborough, Notts.

C64



Flipped



Hooked



Knen



Tawning



Cometose



The Covenant

This game is marketed as a lot of backwards. Guide To The Uncharted and other games from Fantasy. Your task, in the last moments of an ancient race, is to assemble the covenant that will bring an end to the world.

In practice, you power a globe shaped craft, but can only fly north of it. The covenant are divided into areas of four screens. In each area you must find the specific manifestation, then run the particular type of screen which releases the next — there are eight variations per area — and drive over them to collect them. How you need to find a key, take it to an electronic lock, and the messages to more areas will be revealed.

There is a tough enemy fleet, which makes the game very hard to play initially. Without using the save option I could not pass the first area. It's hard to say this would be too difficult for some buyers.

Graphically, the covenant look attractive, and the animation is good, particularly when your main is jumping around. Colour is well used, and sound is reasonable. The game has a professional feel and is well presented.

PS2 will take an achievement, but it doesn't require that much thought, and I think it will appeal more to the rock candy addicts. I also feel it is a good compromise.

Price: £8.95

Publisher: PDS

Address: 432 Saxon Street, 3rd, Coventry CV4 1DG

SPECTRUM



Grand Prix Rally II

This program is one of the first motor racing games to be released for the Amstrad computer. It's behind the wheel of your powerful rally car you can avoid 10 different cars or break neck speed.

The controls provided all have differing characteristics, these include car, fog, air, distance, down, up, right, left, all of which have varying effects upon the performance of your car.

Control is via the joystick, with steering and braking being the only controls available. There are no pass and avoid zones, occurs automatically.

The roads are drawn with perspective going into the screen, the effect of movement being provided by a flashing striped edge to the road. The controls are combinations of straight and bends of differing severity. Some bends require you to brake quite heavily if you are to stay on the road. On many of the screens you can actually get two wheels on the grass verge and activate a car. Try the same manoeuvre on the bridge screen and you had better be a good swimmer.

Should you tire of the 10 screens that are provided you can create your own race tracks using the in-built editor. These can then be used to tape for use in a later day.

Graphically the game is very good, the cars are huge, the scenery is detailed. It is such a pity that you have to be controlled over the car. If they had provided gears and an accelerator the game would have been much better.

J.B.

Price: £8.95

Publisher: Amstrad (Lewes)

Address: Broadwood House, 189 Long Road, Broadwood, Essex CM14 4EP

AMSTRAD



Airwolf

Airwolf is a computer game which is based on the popular TV series of the same name. Your mission is to rescue five US soldiers who are being held hostage deep within a mountainous base in the Andes desert.

You must guide Airwolf on a convoluted winding course through the base. The base is scattered with defence shields through which you must blast your way. As if these didn't provide sufficient hindrance you must avoid the rotating radar dishes, the killer droids, and fly through minefields which are so wide that Airwolf can't!

Essentially Airwolf is a variant on the "Scramble" variety of arcade game, but is far superior to any of its predecessors. The three tiers from the TV series is played in three stages: the game. Landing cars and missions has been paid to both the background and character design. There are draws in graphics colour and available detail.

The game can only be used in conjunction with a joystick. Airwolf reacts instantly to any slight movement of the stick, which can be quite a problem when negotiating the narrow sectors.

As the game begins, five missions are displayed in the bottom of the screen. Each time you come into contact with a wall there is a noisy grating noise and one of the missions is erased. Run out of missions and your billion dollar chopper goes up in smoke — I hope it's covered by full-comprehensive insurance.

I thought the game was excellent but my wife was disappointed. She thought a copy of Jane Michael Vincent, the star of the show, should have been provided with the game.

J.B.

Price: £8.95

Publisher: Amstrad (Elite Systems)

Address: Broadwood House, 189 Long Road, Broadwood, Essex CM14 4EP

AMSTRAD



Ancient Quests

This adventure grade package is aimed at the 5-11 year old, and has a game on each side of the tape.

Side one, King Tut's Treasure, is a Sabre Wolf variant, with the player taking on the role of an explorer in Egypt. Using a metal detector, you search for fragments of the treasure shown at the side of the screen, which can involve searching shops, searching shops with snakes, searching factories with snakes, finding the missing part and smashing the fragments with dynamite. If something is buried on a screen, using a bore and a bar graph which increases in the player's score, it can be dug up. If the treasure doesn't match, the player may need to remember to become aware for later.

The Crown on side two is a maze maze game. The Aztec Aztec has nothing anything to avoid. At certain points a number of men, ghosts, crocodiles and the like first pass, and the player has to answer a question involving counting, addition, subtraction, division or multiplication.

Both games are well programmed, and speed, difficulty and the type of question are all definable. Presentation is clear and simple. Both have attractive, simple and well defined graphics. The Crown is colourful, with very appealing sound, but King Tut is a more playable game, which can be quite challenging on the harder level levels. Neither game has good control keys, but parents are supported. Both games will require some mapping skills from the child.

Generally, a good package. The child will enjoy the games and there is plenty of educational value.

P.S.

Price: £7.95

Publisher: Mazonite

Address: Holborn Court, London EC1P 1DQ

SPECTRUM

The Great American Cross-Country Road Race

Why, I wonder, are nearly all road race games set in America? Driving across the Sahara or over the Andes would be much more exciting than the predictable slog from the Pacific to the Atlantic coast of the USA.

The instructions appear to be dauntingly long, until you realise that they are in four different languages and cover three different versions of the game. Once you have identified the relevant sections, there isn't that much to wade through. They describe how to choose one of the four possible routes and select your next destination city, and how to drive the car (driving is surprisingly easy once you have mastered the art of gear changing, as the great American highway are quite simple and carry very little traffic).

The most awkward part is filling up with gas, as the gas stations are few and far between. If you run out, or blow the engine by mistaking your gear changes, you have to "push" the car to the next gas station by repeatedly pressing the joystick button. This takes so long that you will almost certainly run out of time used by disqualifying.

You are told your position in the race at the end of each stage, and there is a hi-score table in which you can enter your name if you finish in the top 10.

A few more potential disasters might have reduced this game, but as it is it's marginally less exciting than a long drive up the M1. **MJS.**

Price: £9.99

Publisher: Activision

Address: 11 Harley Hill, Marylebone Rd, Regent's Park, London NW1 5HE

004



004

MAD DOCTOR

Building a better world



Mad Doctor

In Mad Doctor, someone known as the Mad Doctor, has a great ambition: by means to create a monster and bring it to life. He intends to obtain the parts for his creation from the village of Fuddburgh — the dwellings, the village centre and the graveyard are all good hunting grounds.

As he wanders around the village, he inspects everyone for magic, selecting the head, body, arms and legs he will use, and also keeps a look out for other necessary items such as the book which will hold the parts together and the metal bar which will attract lightning to bring the monster to life.

This is a very gory scenario for an adventure. Killing villagers and digging up corpses is really not my idea of fun, and a detraction for the idea, prejudiced as against the game before I had even started to play it. However, I have to admit that although the monster is appalling, it has been well created. The 3-D animated graphics are quite impressive, and the joystick control, with the options being selected from a panel at the bottom of the screen, works well.

As you only have to choose between the options listed instead of having to work out for yourself what commands are available, this is rather easier than most text adventures. I did not, however, succeed in bringing a monster to life because the program kept sending halfway through the process.

I do hope the programmer will find less blood-thirsty outlets for his maddest kind talents in the future. **MJS.**

Price: £5.95

Publisher: Creative Sports

Address: Thomson, Box, 206 Farnborough Rd, Farnborough, Hants

004



Merlin

This is one of Creative Sports' "Sparkies" range. Your task is to help Merlin fight off his adversaries and the only way to get on is by using up a spell.

You have to collect a part of the spell as it appears at the bottom of the screen and then drag it into a container. He is hindered in this process by evilised flying creatures, all our exceptions depending on your level of spell — a spell, a spell, an evil and a lovely bag — who the hell?

Once five pieces of Merlin's magic are in the pot he is whisked to the next and more dangerous level. This seems very easy (I hear you say) but there is more.

Every now and then the opposition drop a purchase into the cauldron. The anti-magic spell suspended from the pot will nullify the contents of the cauldron and forces you to start once again on your quest.

Obviously the game is quite good, Merlin and the rest of the magic are very amusingly. I especially like the way Merlin moves to the pot on a fluffy cloud and how the magic spells generally downwards. However, the game is a little more than a magic spell effect — not very exciting. Notwithstanding this Merlin is a game worth looking at and at £2.95 comes within the range of pocket money games. **MJS.**

Price: £2.95

Publisher: Creative Sports

Address: Thomson, Box, 206 Farnborough Rd, Farnborough, Hants

004



Fmen

There are many powerful ROM based monitors available so I was surprised to find Fmen's RAM based monitor for review.

Apart from being RAM based, Fmen is popular in its use of three system variables, A1, A2 and A3. Perspectives for commands are read from these so if you wanted to move a block of memory from A2000 to A2100 into RAM from A2000 onwards, you have to set A2 to A2000, A3 to A2100 and A1 to A1000, and then execute the memory move command.

Setting A1 is rarely accomplished by simply entering a number but A2 and A3 cannot be so directly entered, there are commands to copy A1 to A2, swap A1 with A2 etc. In actual fact, these commands have been so designed that to achieve the block move, you simply type "2000,2010 A1000A1" First A1 is set to A2000, comma swaps A1 with A2, "20" swaps A1 with A3, finally set A1 to A2000 and execute command. After a while, you could probably get used to this system, but I prefer to be able to type in M 2000, 2010, 2000 instead without worrying about variables.

It's a shame I had to be so critical about something so fundamental because the monitor is in fact packed with features. It includes a disassembler, calculator, line assembler, basic point handler, save defined variables, recovery procedures and macros.

These features are very powerful but do take up 5K. This means that up a disc based machine, debugging a game in a graphics mode is almost impossible. If only this monitor was in ROM. **JS.**

Price: £10.00

Publisher: Prof!

Address: PO Box 212, Brighton BN1 1AV

004





Blitz Compiler

I'll freely admit that Blitz is about the best compiler you're ever likely to want or need. The amount of thought and development that must have gone into it was probably enormous. Yet all the time I was using it, the thought that it would cost me virtually £25 to buy this program, if I weren't recovering it for B&W, loomed large in my mind.

This is the first compiler I've used that accepts all the commands available in BASIC. Previously when writing programs with compilers I've often spent ages trying to work out how to carry out certain tasks when a number of BASIC commands weren't accepted by the compiler (one compiler that I've used hardly let you use any commands relating to string variables). With Blitz though, any BASIC program at all can be compiled, either into machine code or a special 'p-code'. This is more compact than BASIC (or p-code), but runs at a speed somewhere between the two.

Once loaded, Blitz leaves you with very little space (ROM — barely 1K to play around with). Fortunately the manual deals with this in some detail, and describes methods of loading and saving larger programs to and from disk tape and alternative.

The manual is a whole a very well done. It covers all of Blitz's features with legible clarity, and even looks off with explanations of some of the jargon involved. Thus it is, however, too small and fairly misleading about with regard to

the colour security system (thanks to the one in BASIC), which might lead you to enter an incorrect code and have it all crash on you. So, once you've entered the relevant letter (W for white, G for green, and so on) don't press ENTER as the manual instructs — the program interprets that as part of the code.

So, what about the speed of the compiled programs? Well, to start with, I wrote a short program to plot a series of circles — not using the CIRCLE command, but using the algebraic formulae for drawing points on the circumference of a circle.

This is a fairly complex bit of calculating, along the lines of $PLOT (R\sin t + 127, R\cos t + 127)$ — with a few other variables and a FOR/NEXT loop thrown in (pretty aggressive isn't it). In ordinary BASIC this is a hopelessly slow and inefficient way of drawing circles, but I wanted to make things as tough as I could for the compiler, and, to be honest, the compiled program was only a few seconds faster than the BASIC program (from 34 to 39 seconds). But, as I mentioned, this was a very inefficient bit of programming in the first case, and once it started to use more sensible methods the speed factor started to drop considerably.

I've only touched on some of the features of Blitz here, and so do a full justice would require a considerable amount of time and re-examination. To sum up, I can only repeat that this is the best compiler around, but how many of us amateur programmers have £25 lying around spare?



Tournament Snooker

Snooker simulations are available for virtually every decent machine. Now British games can get their hands on a very good snooker simulation.

On loading the disc, rather a neat representation of a snooker table pops up and on pressing SHIFT+1, you are taken into one of the most comprehensive set of instructions. After 10 pages, I finally started the game.

On pressing SHIFT+Q, the cue pops up in the vicinity of your white ball and its direction may be changed easily (according to the instructions, it may be altered in steps as small as 0.1 degrees). To make a shot, you press the space bar twice. The strength of the shot is determined by the time between the successive presses. The balls move smoothly and quickly although it seemed much too difficult to actually pot a ball.

During a game, you have all the usual options such as top spin, back spin and side spin as well as an option to ask your opponent to play a ball then again and an option to concede. Surprisingly, there is also an option to save the game. I felt this option was slightly over the top but it just goes to show how much thought went into the design of this game.

Overall, I enjoyed Tournament Snooker... this does not automatically mean that you'll enjoy it too. But, if you like the style of game, you won't find a better snooker simulation for the £100 rate at the moment.

S.S.

Price £14.95

Publisher: Head Software Ltd

Address: 6 Arden Way, Rushmore Park, London W12 9PB



Baffin/Baffin 2

Just when you thought that the platform games had got too safe and boring to be of any further interest, along comes Addictive Games' publisher their semi-soft Football Manager? to breathe new life back into the series.

This machine code game for both BBC and Electron offers all the usual friendly features — hi-score table, sound options, game options and the familiar 2-1/2 feature keys for left/right/jump.

The basic idea is simple — get from one cave to the next by routes which, although cluttered with traps, are quite obvious. Your little monster character (Professor Baffin, of course!) has to destroy all the sinister machines on the way before reaching a resident and who allows access to the next level. So far, so predictable.

What makes the game fun is both the way of destroying themselves (with an umbrella of all things) and the ability to float down from platform to platform using the named umbrellas as a parachute. Traps and perils are also up for grabs as well as the now common time bonus.

Throughout are a great way of getting over some obstacles and it spent some time on one screen just engaging the badger before the call of further screens drew me on.

Interesting to see the original version of Baffin here as well — good value too with 25 screens in Baffin 2 and another 20 in Baffin 1. In short, a good game with lots of fun features. Addictive — but then it would have to be, wouldn't it? D.B.

Price £9.95

Publisher: Addictive Games

Address: 14, Richmond Hill, Richmond, Surrey TW9 1HE

Price £24.95

Publisher: Oxford Computer Systems (Software)

Address: Hemington Road, Wokingham, Oxford



BOOKS

Watson's Notes:
First Steps in BASIC
Exploring Basic
Syntax +

These books are exactly as their titles suggest, a very simple introduction to the art of programming in BASIC. They make no assumptions about you having read the computer manual or how to get into the extended mode. Being specifically designed for the Spectrum, they even show you the positions of the relevant keys on the keyboard using a diagram.

This is a common feature of both books. After each instruction, a diagram shows you where you should see on the screen, down to the error messages and the appropriate cursor. Handy hints are given in each section. Questions are asked and a space provided for the answer to be written on, there are exercises to do, and in the best school-book tradition, the answers are given at the back!

The first volume covers PRINT, SHIFT, DELETE, ENTER, CLR, BORDER, PAPER, INK, strings, sums, sifting, simple parameters and: CIRCLE, ARW, RUN, MIN, PRINT AT, LIST, on board graphics symbols, error messages, and important personalization. Volume 2 carries on with looping, assigning values to variables, FOR NEXT, STOP, CHAR, BREAK, using arrays of graphic displays on the screen, coordinates.

The best thing about these books is that completely undebatable. There really is no point at a book yourself, even which needs a reading age of 94 to comprehend it. With these, you don't get very far in each volume, but you do stand a chance of understanding, even if you can't program your video recorder.

100% 100% 100% 100%

[illegible]

Address: Sandilani Bldg., 3rd
Floor, High St. Corner, 2743
1972



Answered Machine Language for the Absolute Beginner

usually repeat are hoist into the air with great animation. They are often coachman and badly written, or subtle coo-coo-cooing. Enley was, beyond these hand tricks, not giving me the basic understanding I needed to make a start: no machine code. Joe Prichard is to be congratulated, therefore, on a book which really does start at the beginning. Not only that, he uses a very simple approach to give you a picture of your hardware, and then goes on to the CPU and what it all means. You don't need to know about binary, hex or any of the other pitfalls before starting. Joe covers the bit with reference to consulting the power fingers and

You have all that you require to build awesome simple programs for any Z80 based micro and more, however, using the published routines at the Amstrad Software Spec, you are shown how to build them into your own work. Interestingly, for this shows, how graphics language interfaces with and controls the hardware too.

Don't imagine, however, that you will sail through this go one night, then go on to write your own short feature piece. That would be too much to ask. Serious study is required, and at some point the purchase of an assembler will be merit. Even so, the first steps being the hardest, I would recommend this heartily as the best entry point to learning to use *Blade*.

[illegible][illegible]

1000 1000 1000

Address: Castle Yard, Rochester
 moved. TW10 4TP



1-80

Table Reference Guide

As the title suggests the "Z-80 Reference Guide" is not a total general Z-80 assembly language book. It is intended as a reference tool for competent Z-80 programmers and also for users with some experience of assembly language who wish to extend their knowledge.

The book contains a variety of information for the 2-30 programme. Beginning with various facts and the effect of the range of 2-30 studies from across the globe, moving on to some of the 2-30 interventions in, which appears twice. Finally they are presented as groups which have a specific function or activity in sample high load groups, two types of intervention groups, and rural and third group. Deployed in various forms with a short descriptive paragraph, they are also cross-referenced to the chapter containing the second version of the intervention set.

There are many problems in alphabetical order, but each instruction has at least one point of information devoted to it. The information given is very comprehensive. It consists of the object code in decimal and hex, a written description of the action carried out by the instruction, a table showing the effect upon each of the flags, and an example of the use

One final chapter worth mentioning is a short but very useful section of laws and tips. The subjects of several reviews, which may be useful nature to the experienced user, but might save the novice hours.

The Z-80 reference guide is a book that a Z-80 programmer should be without. —J.B.

[illegible]

11-11-11

Address: Carlo Yd. Hsu, Carlo
Yd. Richmond, TN 37087



IT'S A GAME



Dave Ellis returns with a new series on the elements of games writing for Amstrad owners. This week there's advice on colours and drawing

In this series of articles I shall be taking a look at various techniques which should prove useful to anyone who wishes to write their own games programs. I don't presume that you are going to end up with a 'NIGHT LORE' or 'SOCIETY' but hopefully you will be a lot wiser at the end of the series. Things that I shall be covering are: Clipping and Text colours, colour stepping, scaling, rotation, movement by bit switching and other types of movement, logical operations and, to round off, some interrupt handling and sound effects.

As the manipulation of colours plays a major part throughout the series, the first article is a recap of what you should already know. Although the four BASIC commands PEN, INK, PAPER and BORDER seem to be fairly easy to understand they do cause a lot of confusion — especially to newcomers.

The diagram DEFAULT PEN COLOURS shows the state of the colours when the Amstrad is first switched on or reset. A useful device routine to make a note of here is

ABCOG. This pamphlet routine will reset the screen back — the values are set to their default values as shown in the diagram, so are the ink flashing rates. If you get 'lost' with the colours then a CALL ABCOG should prove useful. I've also used it at the beginning of some programs later on to make sure that the colours are set correctly. The routine of ABCEFF in the pamphlets will go even further and reset just about everything.

Study the diagram again — the two dotted lines show the boundaries for MODE 2 and MODE 1. For each Mode there are a given number of 'Pens' that you can use. In MODE 2 there are just the two — 0 and 1. In MODE 1 there are four — 0 to 3, and in MODE 0 there are sixteen — 0 to 15. The confusion that exists here is that although MODE 2 only allows you to use PENS 0 and 1, it will quite happily accept a statement such as PEN 15. What happens in effect is that a Modulus is performed on the PEN colour to bring its number to within bounds. Thus —

PEN 15 MOD 2
gives the result of 1 (15 MOD 2 returns the remainder, so the

PEN is set to 1. In MODE 1 a Modulus of 4 is used so — **PEN 15 MOD 4** would give the result of 3, so PEN 3 would be the pen that is used.

Each of the screen PENS can be filled with any one of 17 INK colours. The diagram COLOUR PALETTE shows the range of the colours that can be used. The INK command is used to set the colour of a particular PEN. So —

INK 3, 16
would set the colour of PEN 3 to PINK.

It would help if you think of the INK command as meaning

Set the colour of PEN P to N' where P is the PEN number and N is any one of the 17 available colours. If you specify two colours for the INK, then this will set the PEN to 'flash' between the two colours —

INK 0,16
would set PENS to flashing BLACK/PINK.

Issuing a PEN command will set the colour of any text that is to be printed with whatever colour set the PEN is currently set to — bearing in mind the comments about the modulus. Note that previously written text is not affected by the use of the PEN command.

PAPER sets all the screen characters and sets the colour that

AMSTRAD



any future background will be so that of the pen number given. I find this then a little confusing — the number given after PAPER is actually referring to the PEN number which 'draws' the background. A modulus is also performed on PAPER, the same as for PEN. And while we're at it you'll be glad to know that no modulus is performed on the BORDER colour ... INITIATED.

The Number You Type Is The Colour You Get!

Try typing out the listing **PEN & PAPER EXAMPLE** and you will see how PEN and PAPER work together. The whole screen background will only change colour if you do a

CLS, and this will clear the background to whatever colour ink is in the current background 'pen'. To change the colour of text on the screen, or the background without clearing a CLS will need the colour of the ink in the PEN used to be changed. This technique will be looked at in greater detail in the next issue.

Of course, the PENs and PAPERS discussed so far only operate on TEXT. Setting the colours of graphics lines and text sent to the graphics card (by using TAGs) will be looked at in my next article. I shall also include a useful program which will help you to experiment with colour stepping.

```
10 CALL SCREEN:MODE 1
15 PEN 0:PAPER 1:PRINT
20 PRINT "this is inverse video"
25 PEN 1:PAPER 3:PRINT
30 PRINT "bright yellow on bright red"
35 PEN 3:PAPER 1:PRINT
40 PRINT "bright red on bright yellow"
45 PEN 2:PAPER 3:PRINT
50 PRINT "bright cyan on bright red"
55 PEN 0:PAPER 2:PRINT
60 PRINT "blue on bright cyan"
65 PEN 1:PAPER 0:PRINT
```

PEN & PAPER EXAMPLE

PAPER/PEN	INK	COLOR
0	1	BLUE
1	24	BRIGHT YELLOW
2	20	BRIGHT CYAN
3	6	BRIGHT RED
4	26	BRIGHT WHITE
5	0	BLACK
6	2	BRIGHT BLUE
7	8	BRIGHT MAGENTA
8	10	CYAN
9	12	YELLOW
10	14	PASTEL BLUE
11	16	PINK
12	18	BRIGHT GREEN
13	22	PASTEL GREEN
14	1/24	BLUE/BRIGHT YELLOW
15	16/11	PINK/SKY BLUE

BRIGHT PEN COLOURS

NUMBER	COLOR
0	BLACK
1	BLUE
2	BRIGHT BLUE
3	RED
4	MAGENTA
5	WHITE
6	BRIGHT RED
7	PURPLE
8	BRIGHT MAGENTA
9	GREEN
10	CYAN
11	SKY BLUE
12	YELLOW
13	WHITE
14	PASTEL BLUE
15	ORANGE
16	PINK
17	PASTEL MAGENTA
18	BRIGHT GREEN
19	SEA GREEN
20	BRIGHT CYAN
21	LIME GREEN
22	PASTEL GREEN
23	PASTEL CYAN
24	BRIGHT YELLOW
25	PASTEL YELLOW
26	BRIGHT WHITE

COLOR PALETTE

EXTENSIONS

This useful program from J Keneally shows how the prowess of the Amstrad CPC464 can be enhanced using a set of expanded Basic commands

You may not be able to get a new ROM4 to upgrade your CPC464 to a 664, but this is the best first step — a set of expanded Basic commands which simulates many of the extra 664 commands, and also add some additional goodies not even available to 664 users!

The extra commands

These are installed as Resident System Extensions (RSEs), as described later. As with all RSEs, commands, they must be preceded by a vertical bar character (|) on a line, and followed by exactly the right number of parameters for that command. Examples are given below.

Graphics commands

The usual MOVE, MOVEB, PLOT, PLOTB, DRAW, and

DRAWB commands are not able to directly set the graphics write mode, i.e. whether the graphics is written in Roplain, Exclusive OR, screen OR, or AND mode. As most will know, the screen data is held in the screen memory, so it is possible to merge new data into the existing screen in several ways.

The simplest is just to replace what was there previously by the new graphics, but many times it is useful to let a bit more subtle. Of particular use is the Exclusive OR method, so that has the property that if you write the same information twice in exactly the same way, after the second write the screen will be restored to the same state as it was before the first write. This is very useful, for example, make a sprite pass in front of a background object,

or behind it, come to that! Another restriction is that the MOVE commands will not accept a pen colour. The expanded commands will all accept both pen and write mode parameters as follows —

```
|MOVE,x,y,p,w
|MOVEB,x,y,p,w
|PLOT,x,y,p,w
|PLOTB,x,y,p,w
|DRAW,x,y,p,w
|DRAWB,x,y,p,w
```

where: x = screen, y = screen, dx/y = x,y offset, p = pen, w = write mode (0 = Roplain, 1 = Exclusive OR, 2 = AND, 3 = OR).

Note that the 0 character has been used instead of the vertical bar, as that cannot be passed.

Cursor Commands

The normal cursor commands all insist on having file-numbered data complete with page between records. file number, and so on. However, it is very useful to simply send a load a section of memory as a single command record. This





is done with:

```
LOADP, address, length
LOADD, address, length
```

where the parameters are the span address, and the number of bytes. You must supply both of these, otherwise strange results will occur.

The other extra screen command is an expanded CAT command—“CAT”

This works in a similar way to the normal CAT, giving a snapshot of a page, but with much more information including load address, store address (for code segments), the type, number of bytes in the block, the size of the physical line, and the block number. All numbers are printed in hexadecimal.

File type is—

- 0 = Basic
- 1 = Binary
- 2 = Screen image
- 3 = ASCII
- 4-7 Undefined

Printed by 1 if presented. Occasionally it is useful to be able to flick on the keyboard upon button, effectively clearing

the computer so that until no keys are being pressed. This can be tricky in Basic, due to the debounce delays etc. As in the end, this is done with the command—“CLEARINPUT”

Erasing a character from the screen can be a handy trick, for example for developing the preview of an object on the screen or overwriting and restoring an area of the screen. Although the 484 operating system has a routine for this, it is not implemented as a basic command. The extended command is of the form—“COPYCHAR, B-A” where A is any string.

The B character is essential if allowed to be loaded with the screen data starting in the current position of the cursor. The string B should be set up vertically with the number of characters you want to read along the line. For example, if “STRENGTH” “COPY CHAR, A” would read 8 characters from the screen, advancing the cursor by 5 places.

Finally, it is possible to read for the start of a screen scan

This can also be done using CALLADDR, but it is much easier to remember “PEAK” as the equivalent BASIC command.

The command is used to synchronise software action with the screen, e.g. to prevent flicker on updates.

Installing the program

The BASIC listing is used to install the machine code for the extended commands. After typing it in, run it to create the code segment, and then save the code for later use using the command “SAVE “UP484” .B, 4000, 50”

As well as creating the code, the BASIC program does a CALL 4000 to line 70 to advance the expanded commands. On subsequent occasions, you will find it quicker to load the code segment alone, rather than BASIC program. Do this by using MEMORY 4000 LOAD. Then activate the extra com-

mand using CALL 4000

Remember that the vertical line character typed in front of any extra command is actually SHIFT @ on the keyboard.

How it works

- 40 set memory size
- 50 activate
- 60 point to code
- 70 the character
- 80 complete loop, then check if OK, if no, not-use extra commands
- 90-99 Basic
- 100-120 code as implemented

Variables

- all has value of code type
- load - screen address to point code type
- store - character

Comments

That uses the special properties of the LPT-484 to convert to screen machine is not practical.

40 REM program to create extra commands
50 REM for Macintosh application
60 REM Copyright © 1993 by 1993
70 REM 1993
80 REM 1993
90 REM 1993
100 REM 1993
110 REM 1993
120 REM 1993
130 REM 1993
140 REM 1993
150 REM 1993
160 REM 1993
170 REM 1993
180 REM 1993
190 REM 1993
200 REM 1993
210 REM 1993
220 REM 1993
230 REM 1993
240 REM 1993
250 REM 1993
260 REM 1993
270 REM 1993
280 REM 1993
290 REM 1993
300 REM 1993
310 REM 1993
320 REM 1993
330 REM 1993
340 REM 1993
350 REM 1993
360 REM 1993
370 REM 1993
380 REM 1993
390 REM 1993
400 REM 1993
410 REM 1993
420 REM 1993
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BRIGHT SPRITES

Some more spritely advice from Andrew Clarke. In part three he looks at expansion, multi-colour and priorities

Last week I left you with the problem of making sprites into more horizontally whilst spritzing more vertically. Program 1 will show how this is done, although this will be slightly more complicated and longer than yours as I've included DATA lines and a routine to POKE the DATA into memory. This is so that you have something to look at



Easy, isn't it? Or did you try to make a mountain out of a molehill?

Quite simply the XY POKE/RESTORE loop provides both the X co-ordinates for sprites and the Y co-ordinates for spritzing. You may have used separate X,Y variables and incremented them each time — if the effect is the same then you didn't fail!

This time I want to deal with expanding sprites, using them in multi-colour mode and how to set sprite priorities. These are three issues that really add the bells to spritz control — they are not necessary and can be ignored, but are worth getting to know.

With expansion you have control over expanding horizontally and vertically. These can be controlled independently. Therefore a sprite can be in four expansion states:—

- 1 Normal (no expansion either way)
- 2 Expanded vertically only

```

0 REM *** PROGRAM ONE ***
1 REM *** READ IN DATA
10 FOR=0 TO 63: READ
12 POKE128+64+Y,X: NEXT
13 REM *** SET UP SPRITES
14 V=50:240:PRINT"3"
15 POKEV+32.7:POKEV+40:14
16 POKE20+40:199:POKE20+41:199
20 POKEV+1:150:POKEV+2:150
22 POKEV+21:5
23 REM *** MOVE SPRITES
24 FORV=80 TO 255
26 POKEV/32:POKEV+3:4V
28 NEXT:GOTO14
30 REM *** SPRITE DATA
100 DATA 0,0,0,19,255,254,10
102 DATA 0,0,120,2,0,240,11
104 DATA 0,0,255,254,32,7,240,10
106 DATA 254,0,0,127,4,0
108 DATA 15,255,0,12,46,0,24
110 DATA 40,7,255,254,0,0,0
112 DATA 0,0,0,0,0,0
114 DATA 0,0,0,0,0,0
116 DATA 0,0,0,0,0,0

```



- 3 Expanded horizontally only
- 4 Expanded horizontally and vertically

First let us see an expanded sprite. Place sprites into an arena where you can see it — you ought to be able to do this easily by now. (It would help if you have typed in the program.) I gave you earlier so you should have something to look at!

Now type Y = 32348 and press RETURN then type POKE V+31,1 and press RETURN. The sprite will expand vertically in the Y direction. Typing POKE V+31,0 will set things back to normal.

Type POKE V+29,1 and press RETURN and you'll have expansion in the X direction. Again PUNCHING the keyboard with a zero will set it back to normal. POKE V+32,0 and RESTORE also restores this but it will take the sprite off the screen as well.

If you use both POKEs together then the sprite will be

really large. Various combinations can be used to make the sprite appear different from its original shape.

The advantages should be obvious. One sprite can be displayed in four ways giving the false impression that four sets of DATA are being used.

You will have noticed, however, that when fully expanded the sprite appears chunky. This is more obvious with multi-colour sprites which I shall cover next.

It is possible to overcome this chunkiness by using two or more unexpanded sprites and "linking" them together to form one large character — the players in International Soccer are done this way, one sprite is the head and body, another is the legs.

For a long time, along with multiple screens, scrolling screens and hero graphics, multi-colour sprites have been an important feature of Commodore 64 games. Many creative video cards succeed there as one of the main game

between. The leads to the false impression that multi-colour is a formidable asset for someone, whose nothing could be further from the truth.

Three additional POKEs will convert any sprite to multi-colour. Can you see on the screen and spend it. Leave it there and type in and RUN Program 1.

```

0 POKE #444: PROGRAM TWO #444+
1 POKE #444: POKE #444: IN DATA
2 POKE #444: POKE #444: POKE #444
3 POKE #444: POKE #444: POKE #444
4 POKE #444: POKE #444: POKE #444
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An unusual sprite is now on the screen. It does have a shape but then again it is hard to distinguish. The trouble is that we have used a multi-colour sprite definition, a multi-colour mode. Type V=1234:POKE V+28,1 and press RETURN. Suddenly colour! — and then colour!

One colour is controlled by the normal sprite colour POKE V+38 for sprite zero, V+40 for sprite one and so on. Two other POKEs control multi-colours 1 and 2 for ALL sprites. They are POKE V+39 and POKE V+41. POKE these registers with a value between 0 and 15 and try to get a combination with POKE V+38 that you find pleasing. Note that the fourth colour available is simply the "screen colour" showing through any "holes" in the sprite, so it isn't a true colour at all.

As with locations V+15, V+16, V+17 and V+18, we found last time, location V+38 is able to affect sprites individually — i.e. value of 1 refers to sprite zero, 44 refers to sprite one. Therefore 43 is both sprite zero and one.

To create sprites in multi-colour or in single colour requires the use of a sprite

editor. You can keep them or type them in out of books — but one I use came out of NOW!

An expensive one allows you to overlay 16 per cent on top of another. This means that you can create a single colour "war frame" sprite and then use another sprite underneath to add to a second colour.

written in the same way as Marchpoint where you saw the own ending. The priorities must be related to the way the sprite will be used. For example, the player needs to be always be "over" the other player and also "over" the ball — he will obscure it if he passes in front of it. The ball, though, will not be obscured by the other player.

Common sense tells us that the nearest player ought to be sprite zero, the ball sprite one and the other player a sprite two. If we were to write this game, however, we should need to ascertain character priorities before we start so that sprites can be correctly assigned to the appropriate game characters.

Sprite to background priority can be changed, though. This is achieved by POKEing location V+27 with the sprite value — so before 1 for sprite zero, 2 for sprite one, 3 for sprite two and so on.

The chosen sprite will now go behind any character data that is on screen. To demonstrate the full sprite zero on screen then type around where it is. You'll notice that all the letters and other characters cannot be seen in the sprite blocks there yet — although some will show through the "holes" in the sprite.

Now type V=1234:POKE V+27,1 and press RETURN. All the type will now appear on top of the sprite. Using this has to be carefully thought out too. Think of the tennis game again, where the net is made of character data, as are the court lines. Obviously the nearest player will not go "behind" the net to his opponent to backgrounded graphics remains unchanged. The other player, however, must be switched to go behind the net each time he approaches it. When he isn't near it you should switch back so that the court lines do not show through him.

And the ball sprite? This too must be switched constantly. It should be "over" the net when in the nearest court and under it when in the far court — it should also be switched to go behind the net when the court line markings. Complicated, isn't it?

The answer is to plan out your programs carefully before you write them. If it is too complicated then simplify it.



To end, I'll leave you with some rather pleasant homework. No typing, just thinking and playing. Try to spot the examples of organisation, multi-colour, priority, and the other points made here, in games that you have bought. Happy hunting! Next time we look at advanced sprites.

Bruce Carver uses this technique in both Real Time Moscow and Dark Head. It has one advantage in that it often better graphics definition. Look at the multi-colour sprite in expanded mode — a little too chunky perhaps?

Overlap will rectify this. But it does mean the use of two sprites thereby leaving you with just another six to play around with — you may not need them all in your current sample game, but how do you'll miss them. Also it means controlling two sprites together, which is BAH! can seem a flawed game. So for multi-colour it seems that overlap — try the expanded multi-colour sprite and everything looks a lot better.

Can find topics that work a priorities of sprites. There are two types of priority — sprite to sprite and sprite to background.

Sprite to sprite priority is fixed and may not be changed. Sprite zero has the highest priority, sprite 1 is next, then 2 and finally up to 7, which has the lowest priority. This means that whenever sprites move, the one with the highest priority will always appear to be on top.

So how do we use this? Let us consider a tennis game

SECONDS OUT



Here's your chance to get punch-drunk in this knockout game for the C64 from Richard Webb

Only you can decide the future for cockney contender Bruno and reigning champion Austrian Holzer as they battle it out in the ring.

After 14 hard fought rounds the two muscle-bound lads go into the 15th and final round with all points square. The object of the game is to corner Holzer with some cunning right hooks and perhaps an uppercut or two.

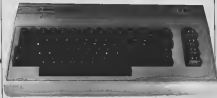
Bruno gets his tactics by the Z and X keys to go right and left and the mouse key to punch. So put on your gloves, decide if you want to feel really silly — and let's keep it a good clean fight.

Variables

Y beginning of VEC register
B beginning of SIO register
X1,X2 XLR positions of Bruno
X3,X4 XLR positions of Holzer
PLPS points score of Bruno & Holzer
BS the box
CM random number to choose Holzer's action
Q variable showing duration of a knockout of Bruno
XZ checks for the duration of a lay
AS,BL,CL used to help track the rounds, moves & time

New Events

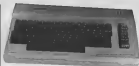
2645 read in options, set their colours and positions
2646-2650 print screen and the boxing ring
2651-2655 round count
2656-2660 main program — checks for a lay period and then reads
4001-4005 prints time and score
4204-4205 shows Bruno punching
7001-7005 shows Holzer's action, then count 3 sec
9000-9005 in & out instructions
9006-9008 sound increasing bit and count of a punch
9009-9010 end of game work, print out options
9011-9015 shows in rounds and



[illegible]

[illegible]

C64 USERS



Attention all C64 users! Listings will be simpler to type in due to the new standard that we have adopted from our sister magazine Your Commodore

Commodore listings are rather well known for the horrible little black blocks that always showed. Unfortunately the graphic characters which are used to represent graphics and control characters do not correspond very well, and they are also difficult to find on the Commodore keyboard.

For this reason HCW used to provide any control characters with a BEM character on the previous line that explained

exactly what the black block was meant to be. Unfortunately the graphic characters were not documented and there still cause some confusion. For this reason we are marking the control and graphic characters in our listings.

In future all control and graphic commands will be replaced by a mnemonic within square brackets. This mnemonic is not typed out as printed in the magazine but

rather the corresponding key or keys on the keyboard are printed. For example (RIGHT) means press the cursor right key, you do not type in (RIGHT). All of the keyboards, what keys to press and how they are shown on the screen are shown below.

Any character that is accessed by pressing shift and letter will be printed as (a LETTER).

(a) (A) shift and A
(z) (Z) shift and Z

Any character that is accessed by pressing the Commodore key and a letter will be printed as (a LETTER).

(a) (A) Commodore & A
(c) (C) Commodore & C
(n) (N) Commodore & I

Any control key will be printed out as a number. For example (001). Control codes are accessed by pressing the CTRL and a letter at the same time (001) is CTRL & A, (002) is CTRL & B etc. See the manual for more information about control codes.

(004) CTRL & A
(008) CTRL & Z

Character	Symbol	what to press	Character	Symbol	what to press	Character	Symbol	what to press
(RIGHT)		left right	(P)		15	(0000)		CTRL & 1
(OFF)		shift left right	(N)		shift & 15	(0001)		CTRL & 2
(P)		shift & up/down	(V)		17	(0002)		CTRL & 3
(DOWN)		up/down	(V)		shift & 17	(0003)		CTRL & 4
(N)		15	(CLEAR)		shift & 00000000	(0004)		CTRL & 5
(N)		shift & 15	(00000)		00000000	(0005)		CTRL & 6
(V)		17	(DOWN)		CTRL & 1	(0006)		CTRL & 7
(N)		shift & 15	(00000)		CTRL & 8	(0007)		CTRL & 8

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Name

Address

Game Required Age

Computer

Allow up to 28 days for delivery

The Mastertronic User Club

Tronix

RON COMPLEX



Fresh from his icy hibernation, Ron Complex special investigator, has arrived in the near future and donned his trilby to track down the bug hatchers

Part three: Software in a basket

Ron Complex stood alone under a swirling snowstorm that night. The windows of the Westland and March were filled with the dim flicker of the hundred monitor screens within. A red microphone of sorts spilled through the open door — the unmistakable sound of simultaneous game playing.

Ron flipped a coin carelessly into his mouth at the third attempt and crossed the road. As he staggered through the doorway every screen in the pub began dark and there was not an other drink cry to be heard. Two hundred heavy eyes revolved as Ron's darkness — one hundred and ninety-nine to be exact for the landlord was wearing an eyepatch.

There's a basic rule in this sort of situation, thought Ron, — act as if nothing has happened and if things get really rough resort to whirling out of town. Ron stopped up to the bar and waited for the first time that the landlord had a parrot on his shoulder.

"Give me a glass of ice — on the rocks?" said Ron.

The landlord returned unresponsive.

"Don't do cocktails huh? Okay are we a township — and I don't mean a beach?"

Slowly the landlord turned and went to the other end of the bar. Ron peered over the counter fully expecting to see a piggy, but instead there were two tiny standard legs.

The landlord returned and slammed a bottle down in front of Ron. Silence pervaded the room broken only by the parrot who occasionally pecked at the landlord's gold earring.

"So you're just a patsy from the west up huh?" asked Ron.

An audible gasp from a hundred mouths echoed round the pub.

The landlord scratched his long black beard and leered. "Some poor business man twenty and there he is on your way while your parrot is still in one piece."

Ron had always wondered what a gazard was but thought this might not be the right time

to ask.

"I'm a private investigator and I'm looking for the best man."

For a short moment Ron thought he had mastered the art of imitation, then he noticed he was getting more help as he was carried to the door by five of the Westland's clerics.

A few months later Ron was getting acquainted with the first point of the London street drainage system. As he lay face down in the gutter Ron reflected that perhaps his direct approach work needed some fine tuning.

"What do I go from here?" he pondered.

Ron felt a tap on his shoulder, he looked round and saw a rather hairy haired youth.

"I was in the pub and heard everything. I think I can help you."

Ron was getting accustomed to saving the world from grooved metal but kept to his feet in an instant.

"You can start by telling me who the Long John Silver computer was with the extra leg."

"Oh that's Captain Computer. Ed, he was a software programmer back in the 60's. He fixed so many penny changes that it went to his head."

"Okay but, why do you know about the legs?"

"I don't know anything but I can take you to the Electric Club."

"The Electric Club?"

Next week: Part 4. "The money is a temporary roof."

TRACK-RACE

You're under starters orders in this Spectrum game from HCW regular R N Butcher

At last a game where you can break the tape and still win! Track-Race lets you test your athletic prowess over a variety of distances — with you as the sporting hero.

The athlete is computer-controlled and you get five tries within 15 seconds before the race starts automatically (there may be allowed for personal preference). Up to six people can enter the race and the final scores announces the winner.

The World Record and individual times can be displayed and updated so and where you or your friends become the fastest thing on two legs.



Variables

W1 W2 W3 World records
S5 race distance
S6a position of athlete
S6b used for calculation of athlete
I used in seconds
DEM 500 array for keeping race

Events

S5 and 1 (for 50 after whole seconds)
S6a/ba array for athletes competing
S7 colour of flag
S8 class 1000
S9 used for calculation of statistics of athletes

```

1 DIM W1,W2,W3,DEM(500),S5,S6a,S6b,S7,S8,S9
2 LET W1=100,W2=200,LET W3=400
3
4 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
5
6 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
7
8 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
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78 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
79
80 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
81
82 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
83
84 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
85
86 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
87
88 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
89
90 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
91
92 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
93
94 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
95
96 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
97
98 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)
99
100 DIM S5(10),S6a(10),S6b(10),S7(10),S8(10),S9(10)

```


BEGINNING MACHINE CODE

Terry and Diana Smith take us right around the block with Spectrum machine code this week

The block move and search instructions which we cover this week are probably the most powerful in the Z80 CPU instruction set.

To see what I mean, load the code of Listing 1, using the loader given in the first article in the series or an assembler. Run the code with RAMC LDR 30000 and you will see every pixel on the screen change to the colour set below.

There are two points to be made about this routine. It is short. It is quick. We have, in an instant, filled each of the 65536 bytes in the display file with a value of 255. 'Whoopee!' No wait, not quite. How does it work?

Change the value of A to 1. LD A,0 and you have a routine which will clear the screen of characters, but not affect the attributes, which at the screen colour. I'll leave you to think of some applications.

The LDIR instruction loads LDRB, Deincrement and Repeat. It moves blocks of data very economically. First you must load HL with the address of the first byte to be moved. Then load DE with the destination address for the first byte and load BC with the number of bytes to be moved. LDIR then copies the byte addressed by HL to the byte addressed by DE and both HL and DE are decremented by one. The byte Cntrol in BC is then decremented by one, and the process is repeated, moving more bytes until BC is zero.

This instruction works automatically through a block of memory, but its "edgecase" LDR (Load) and Store (Store) works just like LDIR, but stops after one byte has been transferred. It is not used as often!

LDIR is the counterpart of LDRB and is read as Load, Increment and Repeat. It works like LDRB, except that HL and DE are incremented. And, surprise, surprise, there is an LDR (Load) and Increment which operates as LDR but increments HL and DE.

A more useful example is

Listing 1

30000	LD	HL,22527	33
			255
			D7
30003	LD	A,255	62
			255
30005	LD	(HL),A	119
30006	LD	DE,22526	17
			254
			D7
30009	LD	BC,6143	1
			255
			23
30012	LDIR		237
			104
30014	RET		201

shown in Listing 1. This is the moving storage program mentioned in my previous article. Load it and run the code to light MSX the Spectrum and try in the BASIC given in Listing 1. This will load the code, produce a storage and scroll it downwards one pixel line at a time.

It works like this. The bottom pixel row of 32 bytes is transferred to a suitable storage area in memory, in this case, the printer buffer. The pixel row stored is copied on the row below and the process is repeated until all pixel rows

have been moved one row down. The top row is discarded, so it is overwritten by copying the original bottom row from the printer buffer. This process scrolls the screen downwards by one pixel buffer. This process scrolls the screen downwards by one pixel with wrap-around.

This routine uses a BCD routine at address 1974. It is called with B holding the pixel row and C holding the pixel column. It returns with HL holding the memory address of the byte containing the pixel, ready for LDR to be used to move the 32 bytes that form a

Listing 2

30100	LD	BC,0	1
			0
			0
30003	CALL	D074	205
			170
			74
30006	LD	DE,23276	17
			0
			91
30009	LD	BC,32	1
			32
			0
30012	LDIR		237
			176
30014	LD	B,175	4
			175
30016	LD	PUSH BC	197
30017	LD	A,175	62
			175
30019	SUB	B	144
30020	LD	B,A	71
30021	PUSH BC		197
30022	CALL	D074	205
			170
			74
30025	PUSH HL		229

30026	POP	DE	209
30027	POP	BC	193
30028	INC	B	4
30029	CALL	8874	208
			170
			34
30032	LD	BC,32	1
			32
			0
30035	LDIR		237
			174
30037	POP	BC	193
30038	DJNZ	LI	16
			232
30040	LD	HL,25296	33
			0
			91
30043	LD	DE,16384	17
			0
			64
30046	LD	BC,32	1
			32
			0
30049	LDIR		237
			174
30051	RET		201

Listing 3

```

10 CLEAR 20000
20 LOAD "a":1:"starcode"CODE 30000
30 PAPER 0:INK 7:CLS
40 FOR n=1 TO 100
50 PLOT RND*255,RND*175
60 NEXT n
70 FOR n=1 TO 175
80 RANDOMIZE USR 30000
90 NEXT n

```

and now.

We will finish off by reviewing the block compare instructions CPBE, CPDE, CPI and CPD. Their operation is similar to the block move instructions but they compare the contents of the byte addressed by HL with the contents of the A register.

Suppose you are writing a data base program and want a routine to find a record called "Fred" within a block of code starting at address 40000 and which is 1000 bytes long. Load A with the code for "F" (06). Load HL with 40000 and BC with 1000. Then use CPBE (Compare, Increase and Re-

peat) to search through the code. If it can't find a character "F" in that block of code, BC will be zero and the zero flag will be reset. If a match is found, the HL register will point to the address after the matching byte and the zero flag will be set, indicating a successful match.

You can then check if HL is pointing to an "F" character and, if so, move HL on to check for "r" and "e". If all matches are successful, you have found Fred!

The next article will be the last in this series and will give some general tips on writing machine code routines.

Tri Count

The Thinking Ship Software Co has created the winning logo to attract the eye to their products. A couple of girls in the office, though, are busy up on your problems of their own rather than dealing with customer complaints. They are trying to work out:

- how many triangles are there altogether in the design and
- how many triangles are more black than white?

Can you not a cut for them?



Join the club

Assured every member is to be looked after by the group so every one is shielded at least when that the group team to help members "see the computer to its full capabilities" and be a "happy, happy" and software a maintenance can be provided to demonstrate their products to the group.

For further information contact Mr D C Barnard, 10 Hildon Rd, High Wycombe, Bucks HP12 3LQ.

READERS PAGE



BBC blurs

I am convinced that there who know about computers please help me! I am the owner of a BBC 2 and I think that before very much longer it will have an on-line TV channel.

One of the typed programs that I buy too will always refuse to load. I get nothing on the screen, but "Error!" and "Abort!" and never successfully. "Hush!" together with a variable number of question marks.

I have had the computer company and never. In a perfect, however I will blame the tape recorder for this. In the other words I've had a tape that has different brand new, every players and does not work.

It seems to me I've had an edition. Money of selling make other might use the only have regarding tape, software, volume control and watching software. Volume of some software would up the price.

I have three audio volume always to compare those same with away and the software configurations with undeniably open sleep again. I have not usually wrapped around off in the good to the problem volume down to be sure again.

I can't understand it and I have no getting worried and upset. The tape they will not continue to load properly on my machine. But I've had more than a hundred but none. And there is every bad tape about it. Is it me? Can someone please tell me what I am doing wrong?

Jennifer Gurnidge, Putney, Ber

Have Computing Weekly,
40/1 Golden Square
London W1R 3AB

Rave reviews

I would first and foremost like to congratulate your team for producing an excellent magazine.

Unmixed with relevant information for the weekly enthusiast. There are a number of reasons why I rate your magazine as No. 1 in the weekly range.

The first of which is the design and layout of the front cover. The highlights of what is going on in the computer world are presented in big bold and so even my grandmother could read it if she liked comparing.

Finally I would like to put you in big thank you for your review section. The idea of a small featured man after doing off two devices or going head over heels in excitement is overdone. Perhaps a well-chosen other magazine, to try something different, not simply print a mark out of me.

I think others out there will agree with me that yours is truly the most enjoyable computing magazine in the shops today. Author. Ray A.

Andrew Elton, South Weymouth

Texas down under

I am an Australian HCW reader who really enjoys yours till 11-09-84. Lately I have noticed a real lack of reviews, programs and advice on the TI and I am, you please not to forget about your loyal readers who work in Texas.

Texas Instruments may have stopped production of the TI-99/4A, but there are still thousands of passionate users in Australia (as well as many more in England and all over the world) who need the support of a magazine like yours for a long time to come.

Don't let the Texas become a memory. Does anyone know if the TI has made one and if it is there is look available on the internet?

Alan Miller, New South Wales, Australia

Apologies

In reply to Karen Ralph from Houston's letter I would just like to say that I am sorry that I got my personal record up. It should have been "Tape and computer". It is a pity we cannot make things together so I suppose it's back to the old drawing board.

Michael Logan, Bristol, Scotland

Play the game

I have purchased HCW ever since it was also available in March 1983 and every week it has been worth the money. I think it's excellent value with all the reviews and programs in.

Every week when I get HCW I look down the contents page for a C64 program. I turn to the page and find it's something like "Welcome to Bloop" or in HCW 112 which is totally useless to me.

Please could you print some decent games without bugs which will be fun to type in and play at the end.

I understand it's hard to get good games from readers these days but please please, please could you try because otherwise what will I do during the summer holidays?

Philip Morgan, Banbury

Worse best

Why not have a copy of the worst instead of best letters? Maybe you could have the computer square out of the a and of Bloop but of the a and of Bloop. Secondly are we really a new wave of computers — programs that make it all an even more great from Home HCW 1000 Home Life World? — maybe. I own a C64 just like you.

Paul Jones, Putney, Ber

LETTERS PAGE

TOP 20

Compiled by
Gallup

SOFTWARE

Fortnight Ending July 30, 1985



Up and Coming

It's tough at the top. Why at the Exploding Star has got the drop from the number one slot but Hypersports could have only a brief stay because at number three Frank Bruno is ready to strike. Big Frank's Boxing is the biggest new entry this week.

Another new entry is Nick Faldo's Open Golf in at number 21. Things are a little tight for Gamma Graphics has moved at number 16 and believe it or not has no connection with video technology.

No less than 17 of the top 20 in the clean and sports games. Where will a soft? Rumours of a Frank Bruno's pole vaulting game in the pipeline are however completely without foundation.

Other games on the move are Dynamic Duo from Microsoft, up a massive 40 places to number 3, BMX Racers, up to 11 from 39 and Kick Start up 27 places to number 20.

LAST WEEK	WEEKS ON CHART	THIS WEEK		LAST WEEK		WEEKS ON CHART	LAST WEEK	WEEKS ON CHART	LAST WEEK	WEEKS ON CHART	LAST WEEK	WEEKS ON CHART
		POS	TITLE	POS	TITLE							
1	1	1	Hypersports	1	1	1	1	1	1	1	1	1
2	2	2	Frank Bruno's Boxing	2	2	2	2	2	2	2	2	2
3	3	3	Way of the Exploding Star	3	3	3	3	3	3	3	3	3
4	4	4	Action Blaster	4	4	4	4	4	4	4	4	4
5	5	5	Soft Ash	5	5	5	5	5	5	5	5	5
6	6	6	Eliza	6	6	6	6	6	6	6	6	6
7	7	7	Dynamic Duo	7	7	7	7	7	7	7	7	7
8	8	8	Jet Set Willy 2	8	8	8	8	8	8	8	8	8
9	9	9	Spy Hunter	9	9	9	9	9	9	9	9	9
10	10	10	Gunther Lyne	10	10	10	10	10	10	10	10	10
11	11	11	BMX Racers	11	11	11	11	11	11	11	11	11
12	12	12	Cauldron	12	12	12	12	12	12	12	12	12
13	13	13	Rocky	13	13	13	13	13	13	13	13	13
14	14	14	Spy vs Spy	14	14	14	14	14	14	14	14	14
15	15	15	Out Run	15	15	15	15	15	15	15	15	15
16	16	16	View in a Cell	16	16	16	16	16	16	16	16	16
17	17	17	Vegas Jackpot	17	17	17	17	17	17	17	17	17
18	18	18	Pinkie 2	18	18	18	18	18	18	18	18	18
19	19	19	World Series Baseball	19	19	19	19	19	19	19	19	19
20	20	20	Kick Start	20	20	20	20	20	20	20	20	20

SPECTRUM

BBC

COMMODORE



Top Ten

- 1 Frank Bruno's Boxing
- 2 Hypersports
- 3 Dynamic Duo
- 4 Jet Set Willy 2
- 5 Action Blaster
- 6 Rocky
- 7 Gamma Graphics
- 8 Jet Set Willy 2
- 9 Spy Hunter
- 10 View in a Cell

Top Ten

- 1 Hypersports
- 2 Frank Bruno's Boxing
- 3 Bright Line
- 4 Dynamic Duo
- 5 Action Blaster
- 6 Rocky
- 7 World Series Baseball
- 8 Jet Set Willy 2
- 9 Action Blaster
- 10 View in a Cell

Top Ten

- 1 Way of the Exploding Star
- 2 Hypersports
- 3 Eliza
- 4 Action Blaster
- 5 Frank Bruno's Boxing
- 6 Jet Set Willy 2
- 7 Jet Set Willy 2
- 8 International Tennis
- 9 Dynamic Duo
- 10 Bright Line

Reader's Maze score table

Name	Game	Machine	Score
Darren Parker	Drakery King	TI 99/4A	264,500
Dave Parker	Fish Frenzy	TI 99/4A	105,000
Richard Marlowe	The Attack	TI 99/4A	100,000
	Monochess	TI 99/4A	83,700
Lee Thomson	Daisy Thompson	Spectrum	330,195
	Escape Lee	Spectrum	178,470
	Monopoly	Spectrum	17,000
Andrew Clarke	Chessmaster	C64	1649,200
	Top to Top	C64	8,970
	Way to Joy		
	Expanding Fun	C64	24,000

Ye old's helpings

Woe! The art of maddening is as dead and Kevin Young from Brix, Northumberland, has come up with some suggestions to save those trapped in Enchanted by Ullmann:

"With your whip a note shall drive and you will find a light to drive.

To find the manner of its cause find the know of its face.

A room of pools ye shall get past when each in order stand then here.

Move the pots and ye shall find the stone with the dip below.

There's a room thou canst not see and scrolls are safe with thee.

The color guards the way ahead but a cloth fear a book that's dead.

Oris will not let you pass until the folio of Thane thou has.

Then important as here at PCW from, with the wordly way of importing, getting, time and if other readers can find strange ways of passing on tips we would like to hear from you. So

"If thou can find a funny way to show, how much games through a game shall go, why not dropeth in a line, and a prize to come can be done.

"I can't stand much more of this", Ed.

Solution to last week's competition

A 10 1 21

Keys to Immortality

Even Baker of Dae-feng is currently studying everything that playing Pragma on his B&B, which down in Llanfair David Luffel has obtained certain lives in Le Flon on the Spectrum.

Baker writes, "All you have to do is type 'LOAD=FING WITH' followed by RETURN. Then hit key 10 which reads PAGE0 - ARKING CHAIN 'BA 21' and change it to PAGE0 - ARKING 'LOAD=BIRD' and run the program as normal.

Now hit 10 in 'BIRD' and change the variable 10 to any number of lives you want. Now you just run the program and you're for the last piece to load. Baker adds, "Don't change the value of the variable 10 to 0 for infinite lives. You can't get out of the game but you can't get on to the high score chart."

David recommends these codes for longer lasting games of Le Flon: **POKE 50550** (for infinite lives) and **POKE 50750** (where 0 = the desired number of lives). "One of these games should be entered at line 50 in the program header and the header can be loaded by typing **WEEK0**" and then playing the tape. An **OE** message should soon appear. Swap the tape and type **LIST**. You have now loaded the program header and can start one of the above games.

However with these lives there are disadvantages, the starting for a big score.

"Using either code when you enter a building do not move up and you will find that you will not appear inside the particular building."

"If you stay in the private your score will gradually go up. But you eventually start to die as your food gets down, however if you keep repeating the above you will end up with a large score."



“These days, my favourite things are in bits...”

WIPPO'S CALLERSON

Minnow/Spectra adventure which you must regain your human form.
 "General rating: Adventure and original adventure Overall value: 10/10" *Crash*

MSX SPECTRA & COMMANDER 64
 (1995)

EVERYONE'S A WALEY

In your multiple worlds adventure Help Waley and his gang to stop the time-biting agent.
 "The graphics are excellent. GRAPHICS 8 PLAYABILITY 8" *Continues to Make Games*

MSX SPECTRA & COMMANDER 64
 AMSTRAD CPC 640
 (1995)

HERBERT'S DUMMY RUN

Herbert's first best friend has been kidnapped in the dangerous time. Carry him to them, his best friend. There's a pile of jelly babies as if you can.

"General rating: none of the same time as most" *General rating: 10/10* *Crash*

MSX SPECTRA & COMMANDER 64
 (1995)

Future Releases include: GLADIATOR, SHADOW OF THE LINCOLN and BATTLE OF THE PLANETS. Watch from for details.

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